

Title (en)

RECONFIGURATION OF THE REACTIVE POWER LOOP OF A WIND POWER PLANT

Title (de)

REKONFIGURATION DER BLINDLEISTUNGSSCHLEIFE EINER WINDENERGIEANLAGE

Title (fr)

RECONFIGURATION DE LA BOUCLE DE PUISSANCE RÉACTIVE D'UNE CENTRALE ÉOLIENNE

Publication

**EP 3075054 B1 20190109 (EN)**

Application

**EP 14795546 A 20141103**

Priority

- DK PA201370729 A 20131128
- DK 2014050358 W 20141103

Abstract (en)

[origin: WO2015078471A1] The present invention relates a method of controlling a wind power plant connected to an electrical grid, the wind power plant comprises a power plant controller (350), a plurality of wind turbine generators (1) and a STATCOM (230), with a STATCOM controller, comprises: controlling the plurality of wind turbine generators in a first control mode, with the power plant controller controlling a reactive power production from each of the plurality of wind turbine generators according to a closed loop control scheme, and controlling in a first control mode with a closed loop control scheme a reactive power production from the STATCOM according to a first setpoint dispatched from the power plant controller, and controlling the reactive power production from the STATCOM in a second control mode from the STATCOM controller according to an electrical measurement in the grid, and controlling the plurality of wind turbine generators in a second control mode, with the power plant controller controlling a reactive power production from the plurality of wind turbine generators, according to a feedforward control or a close loop control, based on a second setpoint from the STATCOM controller, and switching between the first control mode and the second control mode when receiving at least one trigger signal. The invention also relates to a wind power plant according to the method.

IPC 8 full level

**H02J 3/38** (2006.01); **F03D 7/02** (2006.01); **F03D 7/04** (2006.01); **F03D 9/25** (2016.01); **H02J 3/18** (2006.01); **H02J 3/46** (2006.01); **H02P 9/14** (2006.01)

CPC (source: EP US)

**F03D 7/0284** (2013.01 - EP US); **F03D 7/048** (2013.01 - US); **F03D 9/25** (2016.05 - US); **F03D 9/257** (2017.01 - EP US); **H02J 3/1842** (2013.01 - EP US); **H02J 3/381** (2013.01 - EP US); **H02J 3/50** (2013.01 - EP US); **H02P 9/14** (2013.01 - US); **F05B 2270/337** (2013.01 - EP US); **H02J 2300/28** (2020.01 - EP US); **Y02E 10/72** (2013.01 - EP US); **Y02E 10/76** (2013.01 - EP US); **Y02E 40/10** (2013.01 - EP US); **Y02E 40/20** (2013.01 - EP US)

Cited by

EP3736939A1; WO2021253368A1; EP3736939B1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2015078471 A1 20150604**; CN 105830303 A 20160803; CN 105830303 B 20190226; EP 3075054 A1 20161005; EP 3075054 B1 20190109; ES 2710387 T3 20190424; US 10411480 B2 20190910; US 2017025858 A1 20170126

DOCDB simple family (application)

**DK 2014050358 W 20141103**; CN 201480064910 A 20141103; EP 14795546 A 20141103; ES 14795546 T 20141103; US 201415039379 A 20141103